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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,095	12/11/2001	Osamu Ohnishi	15128	2663

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EXAMINER

EVERETT, ROKEYA D

ART UNIT PAPER NUMBER

2637

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/014,095

Applicant(s)

OHNISHI, OSAMU

Examiner

Rokeya Everett

Art Unit

2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 162003, 1/29/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, and 21-25 are rejected under 35 U.S.C. 103(a) as being obvious over Ottosson (US. 6,480,558) in view of Popovic (US Patent 6,567,482) in further view of Zhou (US Patent 6,064,690).

3. In regards to claim 1, Ottosson discloses a cell searcher comprising steps of determining correlation values between received signals and a spreading code shared among base stations to determine a correlation value profile (col. 4, lines 24-43); detecting peak values from correlation value profile and peak timings at the time the peak values have been obtained to detect spreading timings of base stations (col. 4, lines 24-43); subtracting each of generated autocorrelation patterns from correlation value profile (col. 9, lines 26-33). However, Ottosson is silent regarding specific details

of generating an autocorrelation pattern with the center at the obtained spreading timing of a base station and autocorrelation patterns with the center at the peak timings at the time multipath occurs, based on an autocorrelation pattern that has been found in advance from spreading code shared among base stations; and searching for a next base station from the correlation value profile that has undergone subtraction; identifying spreading codes that differ for each base station and that are used by base stations for which spreading timings have been detected; performing a path search process using the detected spreading timings and the spreading codes that differ for each base station and that have been identified to detect peak timings at the time multipath occurs.

4. In the same field of endeavor however, Popovic discloses a cell searcher wherein generating an autocorrelation pattern with the center at the obtained spreading timing of a base station and autocorrelation patterns with the center at the peak timings at the time multipath occurs, based on an autocorrelation pattern that has been found in advance from spreading code shared among base stations (col.3, line 65-col.4, line 11); and searching for a next base station from the correlation value profile that has undergone subtraction (col. 13, lines 34-52). Zhou discloses a cell searcher wherein identifying spreading codes that differ for each base station and that are used by base stations for which spreading timings have been detected (col. 5, lines 59-64); performing a path search process using the detected spreading timings and the spreading codes that differ for each base station and that have been identified to detect peak timings at the time multipath occurs (col. 5, lines 59-67).

5. It would have been obvious at the time of the invention to use a cell searcher wherein generating an autocorrelation pattern with the center at the obtained spreading timing of a base station and autocorrelation patterns with the center at the peak timings at the time multipath occurs, based on an autocorrelation pattern that has been found in advance from spreading code shared among base stations; and searching for a next base station from the correlation value profile that has undergone subtraction as taught by Popovic; and identifying spreading codes that differ for each base station and that are used by base stations for which spreading timings have been detected; performing a path search process using the detected spreading timings and the spreading codes that differ for each base station and that have been identified to detect peak timings at the time multipath occurs as taught by Zhou because Popovic and Zhou provides Ottosson with a cell searcher that provides maximal autocorrelation with minimal delay.

6. Claims 2-5, and 21-25 recite substantially very similar limitations as claim 1 and are similarly analyzed.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-20, and 26-40 are rejected under 35 U.S.C. 103(a) as being obvious over Ottosson (US. 6,480,558) in view of Popovic (US Patent 6,567,482) in further view of Zhou (US Patent 6,064,690) in further view of Aramaki (US Patent 6,370,134).

8. Claim 6 recite substantially very similar limitations as claim 1 and are similarly analyzed, except Ottosson is silent regarding specific details of performing a process of masking correlation value profile such that timings of an autocorrelation pattern with the center at the detected spreading timing and the timings of an autocorrelation pattern with the center at the peak timing at which a multipath is present are not subject to a cell search.

9. In the same field of endeavor however, Aramaki discloses a cell searcher wherein a performing process of masking correlation value profile such that timings of an autocorrelation pattern with the center at the detected spreading timing and the timings of an autocorrelation pattern with the center at the peak timing at which a multipath is present are not subject to a cell search (col. 4, lines 13-40).

10. It would have been obvious at the time of the invention to use a cell searcher wherein a performing process of masking correlation value profile such that timings of an autocorrelation pattern with the center at the detected spreading timing and the timings of an autocorrelation pattern with the center at the peak timing at which a multipath is present are not subject to a cell search as taught by Aramaki because Aramaki provides Ottosson with a cell searcher that provides maximum correlation values.

11. Claims 7-10, and 26-30 recite substantially very similar limitations as claim 6 and are similarly analyzed.

12. In regards to claim 11, Ottosson discloses a cell searcher and is silent regarding specific details wherein step of performing a process of masking correlation value profile includes a step of masking each of the timings that are the object of masking in chip units.

13. In the same field of endeavor however, Aramaki discloses a cell searcher wherein step of performing a process of masking correlation value profile includes a step of masking each of the timings that are the object of masking in chip units (col. 4, lines 13-40).

14. It would have been obvious at the time of the invention to use a cell searcher wherein step of performing a process of masking correlation value profile includes a step of masking each of the timings that are the object of masking in chip units as taught by Aramaki because Aramaki provides Ottosson with a cell searcher that provides maximum correlation values.

15. Claims 12-15, and 31-35 recite substantially very similar limitations as claim 11 and are similarly analyzed.

16. In regards to claim 16, Aramonki discloses a cell searcher wherein step of performing a process of masking correlation value profile includes a step of masking fixed regions in one or a plurality of locations that include timings that are the object of masking (col. 4, lines 13-40) (col. 15, lines 11-20).

17. Claims 17-20, and 36-40 recite substantially very similar limitations as claim 16 and are similarly analyzed.

Other Prior Art Cited

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sourour (6,839,378) discloses multipath delay estimation in direct sequence spread spectrum communication systems.

Lomp (6,721,350) discloses a spread spectrum adaptive power control using a base station.

Padovani (5,577,022) discloses a pilot signal searching technique for a cellular communications system.

Shou (5,910,948) discloses acquisition scheme and receiver for an asynchronous DS-CDMA cellular communication system.

De (6,563,812) discloses detecting multiple signals in a CDMA network.

Ziv (5,710,768) discloses a method for a searching for a bursty signal.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rokeya Everett whose telephone number is (571) 272-5506. The examiner can normally be reached on Mon-Fri, 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RDE

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A handwritten signature in black ink, appearing to read 'J. K. Patel', with a stylized flourish at the end.

JAY K. PATEL
SUPERVISORY PATENT EXAMINER